



Downloadable Dynamometer Database (D³)- Test Summary Sheet

2010 Mercedes S400h

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|----------------------|------------|
| Vehicle architecture | HEV |
| Document date | 11/12/2012 |
| Revision number | 1 |
| Notes: | |

Vehicle Setup Information

| | |
|---------------------------------|--------------------------|
| Test cell location | APRF- 4WD |
| Vehicle Dynamometer Input | |
| Test weight [lb] | 4878 |
| Target A [lb] | 49.31 |
| Target B [lb/mph] | 0.41014 |
| Target C [lb/mph ²] | 0.01722 |
| Test Fuel Information | |
| Fuel type | EPA Tier II EEE Gasoline |
| Fuel density [g/ml] | 0.741 |
| Fuel Net HV [BTU/lbm] | 18459 |

| Test ID [#] | Cycle | Cold start (CS) Hot start (HS) | Date | Test Cell Temp [C] | Test Cell RH [%] | Test Cell Baro [in-Hg] | Vehicle cooling fan speed: Speed Match (SM) or constant speed (CS) | Solar Lamps [W/m2] | Vehicle Climate Control settings | Hood Position [Up] or [Closed] | Window Position [Closed] or [Down] | Cycle Distance [mi] | Cycle Fuel economy [mpg] (Model) | Cycle HV battery Integrated net current [DC Ah] | Cycle HV battery Average Zero crossing Voltage [V] | Cycle HV battery Net Energy [DC Wh] | Cycle HV battery Net Energy Consumption [DC Wh/mi] |
|---|--------------------|--------------------------------|-----------------------|---------------------------------------|------------------|------------------------|--|---------------------------------------|----------------------------------|--------------------------------|------------------------------------|---------------------|----------------------------------|---|--|-------------------------------------|--|
| Test information | | | Test cell information | | | | Test cell setup | | Vehicle setup | | | | Electric energy consumption | | | | |
| Test sequence purpose: Standard testing | | | | | | | | | | | | | | | | | |
| 61002003 | UDDS CS | CSt | 02/16/2010, | 22.2 | 39.6 | 29.2 | Cst spd | Off | Off | Up | Down | 7.44 | 20.4 | -2.741 | 129.1 | -353.74 | -47.53 |
| 61002004 | UDDS HS | HSt | 02/16/2010, | 23.6 | 38.2 | 29.2 | Cst spd | Off | Off | Up | Down | 7.45 | 22.3 | -2.285 | 129.3 | -295.58 | -39.69 |
| 61002009 | Highway | HSt | 02/16/2010, | 22.1 | 40.1 | 29.2 | Cst spd | Off | Off | Up | Down | 10.25 | 33.1 | -1.347 | 129.3 | -174.11 | -16.98 |
| 61002024 | US06 | HSt | 02/18/2010, | 21.5 | 39.1 | 29.5 | Cst spd | Off | Off | Up | Down | 8.01 | 21.7 | -1.312 | 129.4 | -169.77 | -21.20 |
| 61002031 | Steady State Speed | HSt | 02/18/2010, | 22.3 | 42.1 | 29.4 | Cst spd | Off | Off | Up | Down | | | | | | |
| Full charge test summary | | | | | | | | | | | | | | | | | |
| Re-charging information | | | | N/A Ambient temperature during charge | | | | HV battery integrated current [DC Ah] | | | | N/A | | | | | |
| Level: | | | | | | | | Charger integrated current [AC Ah] | | | | N/A | | | | | |
| | | | | | | | | HV battery integrated power [DC Wh] | | | | N/A | | | | | |
| | | | | | | | | Charger integrated power [AC Wh] | | | | N/A | | | | | |

Summary notes

For the highway and US06 cycles only the second (hot) test results are presented in this summary.

Electric energy consumption:

HV battery Integrated net current --> Integrated current as reported by power analyzer

HV battery Average Zero crossing Voltage --> Calculated average zero crossing voltage over the phase or cycle

HV Net Energy --> Integrated power as reported by power analyzer

Note that HV Net Energy is not equal to the product of HV battery Integrated net current times Average Zero crossing Voltage.

* The vehicle coast down information was provided from AVTA track testing

Advanced Powertrain Research Facility Data referencing:

- This data has originated from the Argonne National Laboratory D³ website, http://webapps.anl.gov/vehicle_data/
- The purpose of this information is to provide advanced technology vehicle chassis dynamometer test data for the engineering community. Mostly comprised of vehicle benchmarking test results, it is intended for the better understanding of the technology and for education. Data from this website may not be used as a source for publication or profit without consent of Argonne National Laboratory.
- Please contact d3info@anl.gov for questions, comments or inquiries.